

REMARKS

This application has been reviewed in light of the Office Action mailed on June 10, 2003. Claims 22 and 36-44 are pending in the application with Claims 22, 36, 41 and 44 being in independent form. By the present amendment, Claims 22, 36 and 41 have been amended. No new matter or issues are believed to be introduced by the amendments.

I. Rejection of Claims 22 and 36-44

In the Office Action, the Examiner rejected Claims 22 and 36-44 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1, 3, 4, 6, 14, 15 and 16 of U.S. Patent No. 6,336,587.

A terminal disclaimer is being filed herewith in compliance with 37 C.F.R. Sec. 1.321(c) since the present application and U.S. Patent No. 6,336,587 are commonly owned. Accordingly, withdrawal of the rejection under the judicially created doctrine of obviousness-type double patenting with respect to Claims 22 and 36-44 is respectfully requested.

II. Rejection of Claims 22, 36, 40, 41 and 42 under 35 U.S.C. §102(b)

Claims 22, 36, 40, 41 and 42 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,064,258 issued to Inokuchi et al. on November 12, 1991 ("Inokuchi et al.").

Applicants have amended independent Claims 22, 36 and 41 in a manner which is believed to better define Applicants' invention and which overcomes the rejection.

Specifically, Applicants' Claim 22 has been amended to recite:

An optical system for an optical code reader including an image sensor, comprising:
an objective lens located in an optical path of the code reader for

focusing an image of an optical code onto the image sensor;

a carrier rotatable about an axis and having a first sector radially outwardly located from the rotation axis through which the optical code is read, the carrier having a second sector located radially outwardly of the axis, said second sector containing an optical element, which when placed in the optical path changes the focal distance of the optical system to a focal distance more appropriate for producing video images with the optical code reader; and

means for rotating the carrier for selectively positioning and maintaining a selected one of said first and said second sectors in the optical path during an imaging operation of the optical code reader." (Emphasis added)

Applicants' Claim 36 has been amended to recite:

An optical system for a handheld optical code reader including an image sensor, comprising:

an objective lens located in an optical path of the code reader for focusing an image of an optical code onto the image sensor;

a carrier rotatable about an axis for carrying plural optical elements for selective positioning and maintaining in the optical path of the code reader one of said plural optical elements during an imaging operation, at least one of said optical elements comprising a substantially transparent plano plate, when one of said plural optical elements is placed in the optical path, the focal distance of the optical system changes;

means for rotating the carrier for positioning and maintaining said optical elements in the optical path." (Emphasis added)

Applicants' Claim 41 has been amended to recite:

An optical system for an optical code reader comprising:

an area image sensor;

an objective lens assembly adapted and positioned for focusing an image onto the area image sensor;

a rotatable carrier; and

at least one transparent optical element with substantially parallel, planar surfaces, carried by said rotatable carrier and selectively movable into and maintainable within the optical path of the image sensor by said rotatable carrier during an imaging operation;

wherein the system has at least one focal distance adapted for reading code symbols relatively near to the objective lens assembly and another focal distance for imaging scenes relatively far from the objective lens assembly; and

wherein the thickness of the plate is selected to change the focal distance of the system between the one focal distance and the other." (Emphasis added)

Inokuchi et al. is directed to an information reading device having a high-speed rotating hologram disk with several sectors. Each sector of the hologram disk has a different deflection angle so that an irradiation beam is deflected toward a different direction after passing through each sector as the hologram disk rotates during an imaging operation. A different optical path is formed by each of the hologram sectors. The separated irradiation beams irradiate a bar code surface to be read as a self-raster scan during the imaging operation.

In the device disclosed by Inokuchi et al., reflection beams formed by reflecting the separated irradiation beams propagate back toward the hologram disk and pass therethrough, thereby being deflected by the high-speed rotating hologram disk. The reflection beams are converged toward an optical detector element which detects the optical amount of the reflection beam for reading information corresponding to the irradiated bar code.

During the imaging operation, one particular sector of the hologram disk is not selectively positioned and maintained in the path of the irradiation beam. The hologram disk is rotated throughout the imaging operation to provide the self-raster scan, which is the type of scan the device disclosed by Inokuchi et al. is mainly designed to perform.

Accordingly, Inokuchi et al. does not disclose or suggest "means for rotating the carrier for selectively positioning and maintaining a selected one of first and said second sectors in the optical path during an imaging operation of the optical code reader," as recited by Applicants' Claim 22. Further, Inokuchi et al. does not disclose or suggest "a carrier rotatable about an axis for carrying plural optical elements for selective positioning and maintaining in the optical path of the code reader one of said plural

optical elements during an imaging operation,” as recited by Applicants’ Claim 36.

Further still, Inokuchi et al. does not disclose or suggest “at least one transparent optical element with substantially parallel, planar surfaces, carried by said rotatable carrier and selectively movable into and maintainable within the optical path of the image sensor by said rotatable carrier during an imaging operation,” as recited by Applicants’ Claim 41.

Accordingly, withdrawal of the rejection under 35 U.S.C. §102(b) with respect to Claims 22, 36 and 41 and allowance thereof are respectfully requested.

Applicants’ dependent Claim 42 contains patentable subject matter. It is respectfully submitted that Inokuchi et al. does not disclose or suggest the disclosed reading device having the capability of operating in a hyperfocal mode when an optical element is moved into the optical path of the image sensor. Only Applicants have realized an optical system having at least one optical element carried by a rotatable carrier for operating the optical system in the hyperfocal mode when the optical element is moved into the optical path of the image sensor, as recited in Claim 42 and described at page 20, line 8 to page 22, line 19 of the description. Applicants’ optical system, as recited by Claim 42 taken together with its respective independent base Claim 41, can operate in a hyperfocal mode when at least one optical element is moved into an optical path of an image sensor. The hyperforcal mode enables the Applicants’ inventive optical system to image scenes clearly. Accordingly, Applicants respectfully submit that the limitations of Claim 42 are patentably distinct over and not anticipated by the disclosure of Inokuchi et al.

Further, Applicants’ dependent Claim 42, as well as dependent Claim 40, depend from their respective independent claims, namely, Claims 36 and 41, and therefore

include the limitations of their respective independent claims. Therefore, for at least the same reasons given above for Claims 36 and 41, Claims 40 and 42 are believed to be allowable over the cited reference. Accordingly, withdrawal of the rejection under 35 U.S.C. §102(b) with respect to Claims 40 and 42 and allowance thereof are respectfully requested.

III. Rejection of Claim 39 Under 35 U.S.C. §103(a)

Claim 39 was rejected under 35 U.S.C. §103(a) over Inokuchi et al. Applicants' dependent Claim 39 contains patentable subject matter.

It is respectfully submitted that Inokuchi et al. does not disclose or suggest the disclosed reading device having a laser pattern projector for projecting a pattern and an optical element carried by a rotatable carrier and selectively positionable in an optical path of the reading device comprising an optical band pass filter approximately centered on a wavelength of the projected pattern. Only Applicants have realized an optical system having a laser pattern projector for projecting a pattern and an optical element carried by a rotatable carrier and selectively positionable in an optical path of the optical system comprising an optical band pass filter approximately centered on a wavelength of the projected pattern, as recited in Claim 39 and described at page 18, lines 19-24 of the description. Applicants' optical system, as recited by Claim 39 taken together with its respective independent base Claim 36, can project a pattern and selectively position an optical band pass filter approximately centered on a wavelength of the projected pattern. Accordingly, Applicants respectfully submit that the limitations of Claim 39 are patentably distinct and not obvious over the disclosure of Inokuchi et al.

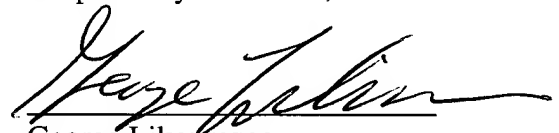
Further, Applicants' dependent Claim 39 depends from Claim 36, and therefore includes the limitations of Claim 36. Therefore, for at least the same reasons given above for Claim 36, Claim 39 is believed to be allowable over the cited reference. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) with respect to Claim 39 and allowance thereof are respectfully requested.

IV. Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 22 and 36-44, are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Applicants' undersigned attorney at the number indicated below.

Respectfully submitted,



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